Assistant Secretary for Environment, Safety and Health

U.S. Department of Energy
Washington, D.C. 20585

E S&H SYNERGY

DOE/EH-0487-2

Managing Workers' Compensation Makes Workplaces Safer

Government agencies are finding out what private industry has already acted on--workers' compensation *management* programs are a key to worker health and safety. These programs not only reduce injuries, illnesses, and lost workdays, but they increase productivity and quality to boot. To bring DOE operating contractors and subcontractors in line with the proactive efforts of private industry, DOE is completing an ambitious survey to "follow the money" to determine what it spends on workers' compensation and where. DOE will use the data to develop a template for establishing contract language, performance measures, and performance targets to improve workers' compensation performance via the DOE contract reform initiative.

Continued on page 3

DOE's NEPA Compliance Program Wins 1995 Federal Environmental Quality Award

The Department of Energy's (DOE) National Environmental Policy Act (NEPA) Compliance Program received the 1995 Federal Environmental Quality Award from the National Association of Environmental Professionals and the President's Council on Environmental Quality at the Association's 20th Annual Conference and Exposition on June 11, 1995, in Washington, D.C. From among 16 nominations, DOE was cited "for its actions to integrate environmental values into its agency mission and its commitment to excellence in environmental decisionmaking." The award also commends "Secretary Hazel R. O'Leary's leadership in developing openness in DOE's decisionmaking in dealing with technically complex, environmentally risky, and highly controversial projects."

DOE earned the award for "bold steps" introduced by the Secretary's June 1994 NEPA Policy to make DOE actions more cost-efficient, timely, and useful to DOE decisionmakers and the public. The award recognizes DOE's improved use of the NEPA process for strategic planning and decisionmaking for major transitions in missions and site activities. Other achievements include issuing a series of guidance documents; designating document managers to keep major NEPA reviews within budget and on schedule; cooperative consulting with Federal, state, and local agencies, Native American Tribes, and the public early in the NEPA process; and pioneering use of technology, such as the DOE NEPA Web (formerly Home Page) on the Internet.

Peter Brush, Principal Deputy Assistant Secretary for Environment, Safety and Health, accepts the 1995 Federal Environmental Quality Award on behalf of DOE.

Initiatives underway to further improve DOE's NEPA program include expanding the list of categorically-excluded actions and eliminating the need to document its application, issuing NEPA Contract Reform Guidance, and streamlining the NEPA Order. A NEPA Quality Improvement Team is being established under the leadership of James Davis, Assistant Manager for Environmental Management and Support at DOE's Oakland Operations Office (OAK), to measure the success of changes under the June 1994 NEPA Policy and recommend further improvements. For details, contact Carol Borgstrom (EH-42) at (202) 586-4600. ❑

In this Issue . . .

A Special Thanks To Our Readers

Changing Hands

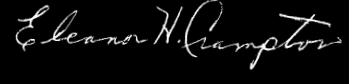
Thank you for supporting the ES&H Synergy newsletter and one of its predecessors, The Safety & Health Connection newsletter. I am pleased to hear that Synergy is helping to keep you informed about events taking place at DOE Headquarters and in the field that increase protection of workers, the public, and environment.

Beginning with the Winter 1995 issue, production of ES&H Synergy will be transferred from DOE's Office of Worker Health and Safety (EH-5) to the Office of Planning and Administration (EH-7). I hope that Synergy continues to be a valuable information resource for you and your colleagues.

Joseph E. Fitzgerald, Jr.
Deputy Assistant Secretary
Office of Worker Health and Safety

Thank you

As Managing Editor of ES&H Synergy and the Editor of the former newsletter, The Safety & Health Connection, I want to thank you, our readers, for your support. A special thanks to those who have provided feedback, kept us informed of your site's activities, and directly submitted articles for publication. A personal thanks to Joe Fitzgerald for his encouragement and support in initiating and producing The Safety & Health Connection, which evolved to be ES&H Synergy. I hope that Synergy continues to meet your needs and receives your support.



Eleanor H. Crampton

ES&H SYNERGY

ES&H Synergy is a quarterly newsletter published by DOE's Office of Environment, Safety and Health to promote awareness and information exchange of all environment, safety, and health issues impacting DOE personnel and contractors. Each issue highlights Headquarters and field initiatives in environment, health physics, nuclear and facility safety, occupational medicine, and occupational safety and health. To be added to the distribution list or to receive a copy of this publication, call (301) 916-4444. Synergy is also available electronically through Technical Information Services (TIS) or via Internet.

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Managing Workers' Compensation Makes Workplaces Safer (continued from page 1)

Although total costs are not the issue, industry costs have tripled in 10 years, ranging from 2-10 percent of company payroll. Using the conservative end (2-5 percent) of this estimate, DOE calculates that its operating contractors could spend as much as $134-$335 million a year on workers' compensation based on a 1994 gross contractor payroll of $6.7 billion.

DOE's Office of Worker Health and Safety (EH-5) and Office of Contractor Human Resource Management (HR-524) will follow up the July 1995 survey with a benchmark survey of industry workers' compensation costs per worker and payroll percentage, and best management practices. Most industry programs incorporate similar elements, including aggressive investigation of questionable claims, return-to-work programs, integration of safety and health (S&H) programs with workers' compensation programs (including multi-task training), and supervisor accountability with incentives tied to S&H performance.

By adapting elements of industry programs that complement the unique environments and tasks of DOE worksites, DOE plans to establish a complex-wide workers' compensation management program that achieves the following goals.

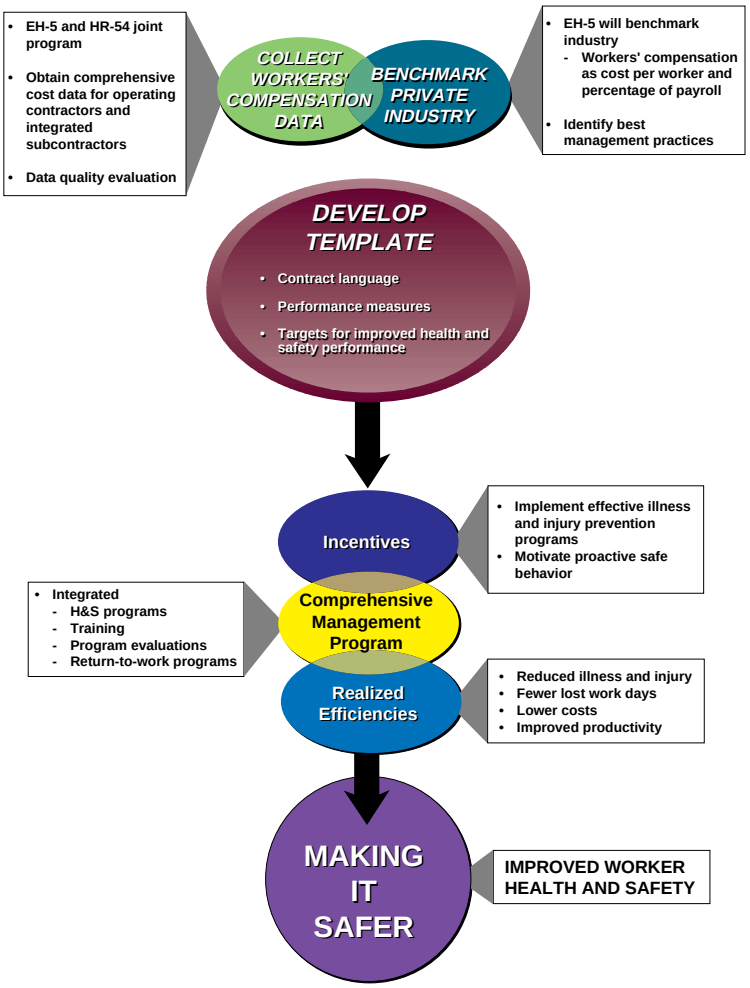
(1) Reduction of injuries, illnesses, lost workdays, and costs, and increase productivity.

(2) Implementation of effective injury and illness prevention programs through incentives that motivate proactive safe behavior.

(3) Development of comprehensive workers' compensation management programs that integrate S&H training with program evaluation and return-to-work programs.

For details, call John Smith (EH-51) at (301) 903-1441 or Connie Eimer (EH-51) at (301) 903-9825. ❑

Worker's Compensation Benchmarking Survey



Lessons Learned Report on Work Planning Available in October

Preliminary results from the first Enhanced Work Planning Demonstration Pilot Projects at Rocky Flats, Hanford, and Fernald sites point to the same conclusion: *Work planning is safer, and improves work relationships and employee communication*. A lessons learned report, chronicling the changes generated by work planning at these sites, will be available in October 1995. The projects, initiated in November 1994, enable multidisciplinary teams of site managers, workers, and S&H personnel to test their own strategies to the following:

- Integrate hazard analysis and control into the conduct of work.
- Improve worker safety through prevention of injury, which increases productivity.
- Decrease costs and improve the efficiency and quality of work.

Significant time and cost savings have been realized since the pilot projects began. Rocky Flats cut planning time for one project from 9 months to 4 months, and is anticipating a 50 percent reduction in total project costs. Even better, the concepts of teamwork and worker involvement are being adopted by staff at other facilities and projects across the site. Workers, as a result, have gained increased confidence in recognizing and understanding potential exposures to hazardous materials and preserving their health.

Based on these early success indicators, pilot projects at five sites and two laboratories are being planned. For information on the project, call John Moran (EH-5) at (301) 903-3869. ❑

Field Projects Road Test HAZWOPER Handbook

Hanford, Fernald, Rocky Flats, and Idaho sites continue to field test implementation of the *Handbook for Occupational Health and Safety During Hazardous Waste Activities*—designed to promote safe conduct of hazardous waste activities on time and within budget—under the EH/EM Hazardous Waste Workers Safety and Health Initiative. This initiative, a continuing partnership between DOE's Offices of Environment, Safety and Health (EH) and Environmental Management (EM), was launched to develop guidance—like the *Handbook*—that integrates the complex and conflicting requirements for hazardous waste cleanup and emergency response.

Line managers at these sites are using the *Handbook* through December 1995 to enhance work planning and evaluate effectiveness of the *Handbook's* tools and models. Although comments are not due to the Office of Worker Health and Safety (EH-5) until December 1995, line managers are encouraged to submit success stories at any time so that they can be distributed throughout the complex before the *Handbook* is published in final form in March 1996.

Significant savings from using the *Handbook* have already been measured. At Hanford, a training "streamlining" project potentially reduces initial training from 250 hours to 100 hours per new employee, saving $3,000 per employee. With 3,000 new workers added each year to support DOE's accelerated cleanup efforts, the savings could approach $9,000,000 a year. Likewise, a Rocky Flats team that cut job planning from 8 to 4 months anticipates saving millions in planning costs.

Elsewhere, Fernald is using multidisciplinary teams to enhance and streamline the work planning process. Idaho is evaluating guidance and recommendations on applicability determinations, hazards-based work planning, requirements integration, and preparation of site-specific health and safety plans for hazardous waste operations and emergency response (HAZWOPER) tasks. For more information on this initiative, call John Moran (EH-5) at (301) 903-3869. ❑

DOE Sets Baseline for Cutting Toxic Chemical Releases by Half

Executive Order 12856, *Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements*, signed August 2, 1993, directs Federal agencies to reduce releases and offsite transfers of toxic chemicals—as reported in the Emergency Planning and Community Right-to-Know Act's (EPCRA) Toxic Chemical Release Inventory (TRI)—by 50 percent as of December 31, 1999. This goal applies only to the total releases of toxic chemicals to the environment and transfers of these chemicals for treatment and disposal. By establishing a 1993 baseline year, DOE jumped 1 year ahead of all other Federal agencies, thanks to its participation in the Environmental Protection Agency's (EPA) 33/50 pollution prevention program and voluntary TRI reporting. DOE's 1993 baseline total is 4,677,504 pounds—0.1 percent of the 1993 industry-wide TRI total.

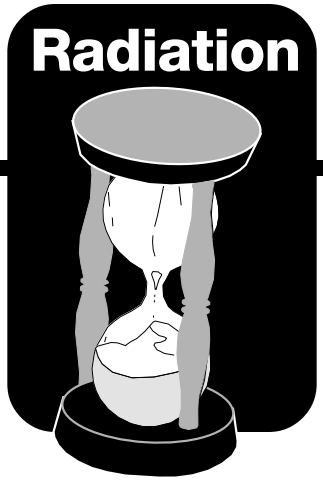
To reduce its total reported releases and transfers by 2,338,752 pounds, DOE must focus on specific chemicals and sites which contributed the largest amounts to the 1993 baseline. Methanol, sulfuric acid, dichlorotetrafluoroethane (CFC-114), hydrochloric acid, nitric acid, and ammonia are the largest chemical contributors. In reporting year 1993, for example, 3,665,991 pounds of methanol—or 78 percent of all toxic chemicals reported by DOE—were released and transferred for treatment and disposal.

The Naval Petroleum Reserve #1's report of 3,782,920 pounds of ten listed chemicals represents 81 percent of the 1993 DOE baseline. Of the remaining 894,584 pounds, Idaho National Engineering Laboratory accounts for 41 percent, Engineering Technology and Engineering Center and the Portsmouth Gaseous Diffusion Plant account for a combined 30 percent, and the remaining 19 DOE facilities account for 29 percent. For information on helping DOE meet the 1999 reduction goal, contact Jane Powers (EH-413) at (202) 586-7301. ❑

Hanford Occupational Health Strategic Plan Integrates Multicontract Programs

Providing for integrated occupational health programs in a large, multicontractor environment has been one of the more demanding challenges facing S&H professionals at Hanford. To meet this challenge, a multicontractor/Richland Operations Office (RL) working group developed a draft site-wide Hanford Occupational Health Strategic Plan. The Plan will integrate occupational health into Hanford missions more efficiently and improve worker protection programs and S&H performance. A technical resource for managers, the Plan gives options for resource allocation, allows decisions based on risk, and minimizes risk through prevention. Hanford contractors have flexibility in implementing the plan's strategies in support of their own missions. Working group members built the plan to be a framework for noteworthy site practices and provide a source of performance indicators in keeping with DOE contract reform initiatives. For details on the Hanford Occupational Health Strategic Plan, contact Hollie Mooers (RL) at (509) 372-0166. ❑

Do Low Doses of Radiation Over Long Periods of Time Cause Cancer?



The International Agency for Research on Cancer recently completed a mortality study on 95,673 nuclear industry workers in three countries aimed at obtaining the most precise direct estimates to date of cancer risks associated with cumulative occupational exposures to low-dose external ionizing radiation. It included workers employed for 6 months or longer in DOE's Hanford, Rocky Flats, or Oak Ridge facilities in the United States; Sellafield, Atomic Weapons Establishment, or Atomic Energy Authority in the United Kingdom; or Atomic Energy of Canada, Ltd.

Major findings were first reported in the October 15, 1995, issue of *The Lancet* (Vol. 344, pp. 1039-1043). The risk of mortality due to leukemia [excluding chronic lymphocytic leukemia (CLL)] increased linearly with greater cumulative radiation dose. Starting with 0 dose, the risk increased 2.2 percent for each 10 milliSieverts (mSv) of cumulative dose. Workers with a cumulative dose of 100 mSv had a 22 percent increased risk of mortality from leukemia (excluding CLL), compared with unexposed workers. This finding was statistically significant. The risk of mortality from all other cancers combined, however, appeared not to be related to radiation dose.

A second paper, published in the May 1995 issue of *Radiation Research* (Vol 142, pp. 117-132), reported more detailed results, based on comparisons of observed and expected deaths by dose category for each of 47 causes of death (including 32 specific types of cancers). Besides leukemia, mortality from only one other type of cancer, multiple myeloma, had a statistically significant association with increasing radiation dose. Among noncancer causes of death, only mortality from circulatory disease was found to have a statistically significant association with increasing radiation dose, although this observation may have been due to an inability to control adequately for socioeconomic or lifestyle variables.

A third paper on this study, pertaining to dosimetry methodology, is planned in the near future. The authors conclude that their cancer risk estimates are consistent with previous estimates from high-dose studies. DOE's Office of Epidemiologic Studies (EH-62) prepares Health Bulletins on studies affecting worker health for distribution throughout DOE and to DOE public reading rooms. For more information, call Lynn Judson (EH-62) at (301) 903-1797. ❑

New Publication on Chronic Beryllium Disease Studies

The detection of new cases of chronic beryllium disease (CBD) among workers at DOE facilities suggests that permissible exposure limits for beryllium now used by DOE and private industry may not provide adequate protection. The current Occupational Safety and Health Administration (OSHA) 8-hour time-weighted average exposure limit of 2 micrograms of beryllium per cubic meter of air was adopted in 1949 by the Atomic Energy Commission. Since the 1940s, DOE and its predecessor agencies have used beryllium metal and beryllium oxide ceramics to produce a variety of products. Two studies of beryllium-exposed populations published in 1993 indicate that incidence rates for beryllium disease today (approximately 2 per 100 exposed workers) are similar to rates of the disease in the 1940s, before a beryllium standard existed. (See *Journal of Occupational Medicine,* volume 35, pages 267-274 and *American Review of Respiratory Disease,* volume 148, pages 985-991.)

Concern over these findings prompted the Office of Epidemiologic Studies (EH-62) to publish a *Health Hazard Alert* on "Chronic Beryllium Disease" (Issue 94-4) in July 1994 to inform DOE management and workers of the health risks associated with exposure to beryllium. In sensitive individuals, CBD, which begins as an immune response to the inhalation of beryllium particles, may result in lung inflammation and damage, and, in advanced stages, may be life-threatening. The *Alert* recommended improved industrial hygiene practices to reduce source contamination, as well as personal monitoring and medical surveillance of exposed workers.

Currently, a new blood screening test, the lymphocyte proliferation test (LPT), is being used to identify workers with early-stage CBD, who can be medically monitored, removed from tasks involving possible exposure, and treated to minimize permanent lung damage. Results of research studies on beryllium and LPT, and the ongoing medical surveillance program for detecting CBD in DOE workers, conducted by the Office of Occupational Medicine (EH-61), will be detailed in a future *Safety and Health Bulletin*, "Chronic Beryllium Disease at DOE" (DOE/EH-0498, Issue 95-8). For more information on these studies, contact Paul Wambach (EH-61) at (301) 903-7373. ❑

ACRONYM LIST

CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFC	chlorofluorocarbon
DOE	Department of Energy
EH	Office of Environment, Safety and Health
EM	Office of Environmental Management
EPA	Environmental Protection Agency
ES&H	environment, safety, and health
FY	fiscal year
HAZWOPER	hazardous waste operations and emergency response
INEL	Idaho National Engineering Laboratory
LMES	Lockheed Martin Energy Systems, Inc.
NEPA	National Environmental Policy Act
OAK	Oakland Operations Office
ORISE	Oak Ridge Institute of Science and Education
OSHA	Occupational Safety and Health Administration
RF	Rocky Flats Field Office
RL	Richland Operations Office
S&H	safety and health
TIS	Technical Information Services

OSHA Watch

A new column to keep readers up to date on various OSHA activities or initiatives affecting DOE.

Oversight Transition

Tara O'Toole, Assistant Secretary for EH, and Joseph A. Dear, Assistant Secretary of Labor for OSHA, signed a Memorandum of Understanding (MOU) on July 19, 1995, to evaluate the possible transition of internal DOE oversight of OSH matters involving private employees at DOE government-owned contractor-operated facilities to external OSHA enforcement. One important MOU activity is an independent study of all aspects of the proposed transition. The study began late Summer 1995 and is scheduled for completion in Spring 1996. Once completed, DOE and Labor Department representatives will submit reports to their respective Secretary addressing the advantages and disadvantages of transferring oversight to OSHA.

Statistics on OSHA HAZWOPER Inspections

OSHA released citation data from FY 1992 through FY 1994 on three major activities under OSHA Standard 29 CFR 1910.120, "Hazardous Waste Operations and Emergency Response" (HAZWOPER): hazardous waste site activities, Resource Conservation and Recovery Act/Treatment, Storage, and Disposal (RCRA/TSD), and emergency response. Five years after HAZWOPER's promulgation, emergency response, site characterization, training, and written S&H programs were the major deficiencies cited in hazardous waste activities. Based on OSHA's data (see below), it appears that these issues have declined in significance compared to compliance matters.

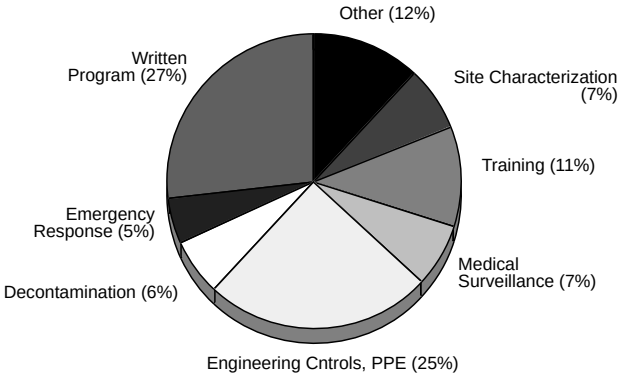


Figure 1 is the proportion of HAZWOPER violations cited under 29 CFR 1910.120 (b)-(o), "Hazardous Waste Site Activities."

Seven-step HAZWOPER Safety and Health Program

Through an EPA/OSHA interagency agreement, the EPA-Labor Superfund Task Force sponsored in-depth inspections of several Superfund sites by OSHA teams. The inspections focused on sites using new environmental remediation technologies. OSHA issued useful documents as a result of this initiative, including a comprehensive inspection protocol. Another one of these documents is *Seven Steps to Successful Safety and Health Programs at Superfund Sites: A Compendium of Lessons Learned*, by MaryAnn Garrahan, charter member of the Task Force and industrial hygienist at OSHA (published in OSHA's *Job Safety & Health Quarterly*, Winter 1995). The seven steps are listed below.

1. The contract must allow effective, site-specific management of S&H.
2. The contractor must designate a S&H supervisor who has the authority to manage site S&H procedures and is qualified to do so.
3. Written S&H plans must be site-specific.
4. Site work zones must isolate hazards.
5. The effectiveness of site S&H procedures must be evaluated and documented.
6. Written maintenance and repair procedures and records are essential where thermal technology is used. (This reflects the focus on new technologies—in these instances, portable incineration units.)
7. Emergency response must be coordinated with local responders and rehearsed onsite.

Where Does Ergonomics Stand?

OSHA's ergonomics standard development team leader, Barbara Silverstein, left the agency on June 16. OSHA has stated that the proposed standard is still under development, but its release is "not now possible." Meanwhile, a work group formed by members of OSHA's Advisory Committee on Construction Safety and Health (ACCSH) shifted its focus from chronic repetitive motion disorders to acute musculoskeletal injuries—the leading cause of lost-time injuries in numerous construction crafts.

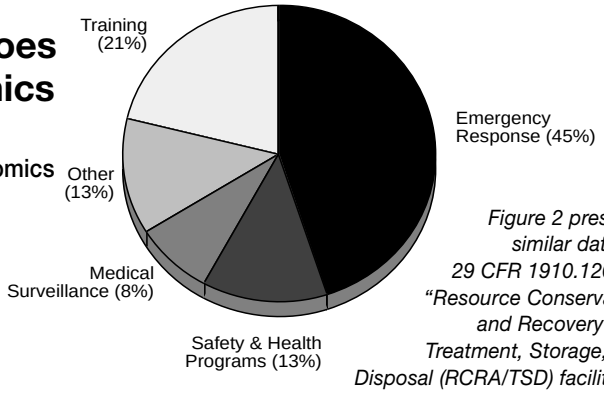


Figure 2 presents similar data for 29 CFR 1910.120 (p), "Resource Conservation and Recovery Act/ Treatment, Storage, and Disposal (RCRA/TSD) facilities."

Safety and Health Program Standard

The OSHA team charged with developing a proposed standard on S&H programs met with an ACCSH work group on "elements under consideration to discuss" (1) if a separate standard is appropriate for construction, (2) if and how the standard applies to small contractors, and (3) if the program should be "written." The OSHA team intends to present a proposed standard to Dear in FY 1996.

Readers are encouraged to forward comments or ideas for future columns to John Moran (EH-5) at (301) 903-3869 or fax to (301) 903-3189. ❑

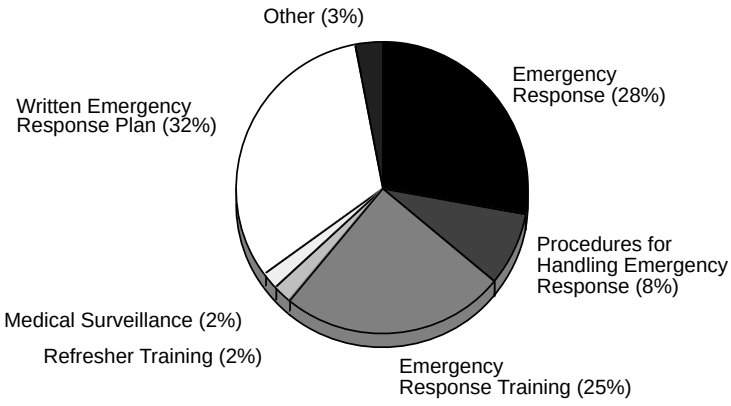


Figure 3 addresses 29 CFR 1910.120 (q), "Emergency Response."

Liability Seminar Reveals Reality of External Regulation

DOE personnel came face to face with the realities of operating under external regulation—the possibility of criminal and civil liability—at a June 1995 seminar on "Prime/Subcontractors, Privatization, and Outsourcing: Who is liable for worker health and safety?" EH sponsored the seminar on the landmark legal case of the 1988 Milwaukee tunnel explosion that killed 3 employees on the Milwaukee Water Pollution Abatement Project. Discussions were led by John Ramage, Senior Vice President, and David Miller, Vice President, CH2M HILL, one of two contractors still tangled in legal battles over responsibility and criminal liability for the explosion. Although CH2M HILL has been cleared of all criminal and civil liability, the case epitomizes the irony of fulfilling your legal, contractual, and moral responsibilities but still needing to defend yourself in court.

The Milwaukee project, scheduled for completion in Fall 1995, involves upgrading two waste water treatment plants, and establishing a large-diameter, in-line storage interceptor system and program to relieve combined sewer overflows in the Milwaukee metropolitan area. Construction costs (comprising 324 separate construction contracts) represent $1.6 billion of the program's $2.29 billion in total costs. S.A. Healy is the prime contractor responsible for all onsite work and worksite safety. CH2M HILL is the program (or construction) manager responsible for planning, design, construction management, cost and schedule control, and claims management or mitigation.

On November 10, 1988, a methane concentration of 20 percent above the lower explosive limit forced the safe evacuation of 11 workers from the tunnel. Three experienced contractor employees reentered the tunnel without first executing the contractor's evacuation and recovery plan. An explosion killed them five minutes later.

S.A. Healy was indicted on negligent homicide charges and violation of OSHA regulations. CH2M HILL was cleared of all charges. However, despite Healy's acknowledgement under oath of all responsibility for worksite control and safety, OSHA is still pursuing legal action against CH2M HILL. OSHA filed an eleventh-hour appeal after a Department of Labor administrative judge dismissed all charges in 1993, saying that the program manager shared control of the worksite, and therefore shared liability. CH2M HILL expects resolution in 2 or more years. Total expenses for litigation, tunnel recovery, and returning to work exceeded $7 million. Lawsuits for the deceased are still pending.

Lessons Learned

Lessons learned from this case reflect construction management and oversight issues also faced by DOE contractors. Ramage stressed the importance of following the recommendations listed below to combat ambiguity common to multiemployer worksites and underground construction projects.

(1) Language in *all* contracts is critical.
(2) Conduct must be consistent with the contract documents.
(3) Contemporaneous documentation is imperative.
(4) Control of the work must be given to the party with the requisite education, training, and experience.
(5) All persons need minimum health and safety training.
(6) Everyone has a different perspective of roles and responsibilities.
(7) Construction projects are inherently risky, and the legal system may not mitigate those risks.
(8) There are no clear guidelines—hire competent experts and, if necessary, lawyers.
(9) The greater the injury, the higher the profile, and the greater the exposure to liability.
(10) There are ambiguities among the Occupational Safety and Health Act, OSHA regulations, and the applicable case law that may result in greater exposure to liability.

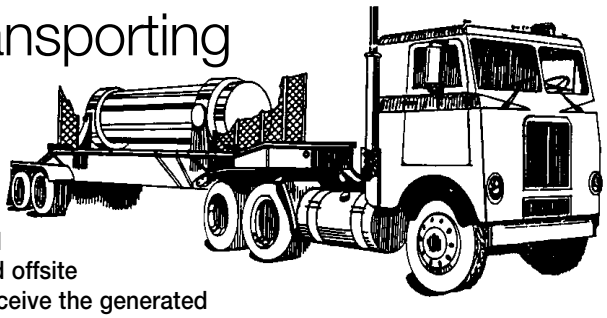
For a videotape loan of this and other EH brown bag seminar discussions, contact George Kaplan (EH-74) at (202) 586-5101. The seminar will be repeated on November 16, 1995, at the Annual DOE Environment, Safety and Health Conference in Denver, CO (see page 12 for more information). ❑

Emergency Assistance by DOE Proves Critical to Local Community Safety

SR firefighters deploy a master stream from an elevated platform.

A mutual aid agreement between the Savannah River Site Fire Department (SRSFD) and local communities was an important factor in the successful response to a recent conflagration in Williston, SC. Mutual aid agreements of this type are an integral part of DOE's Fire Protection Program. On July 15, 1995, SRSFD received a call for mutual aid assistance on a fire raging out of control in the historic district of Williston. A site ladder truck and crew arrived within minutes to help local firefighters bring the fire under control after more than 2 hours. Damage to the structures was estimated over $1 million. There were no injuries to the public, although several firefighters suffered from heat exhaustion. A Williston town councilman wrote to say that he "heard numerous comments regarding the great job that [SRSFD] personnel did. [The SRSFD] team and equipment simply saved the day and kept the fire from spreading throughout the remainder of the downtown area." For more information, contact Dennis Kubicki (EH-51) at (301) 903-4794. ❑

How EPA's Final Offsite Rule on Transporting CERCLA Wastes Affects DOE

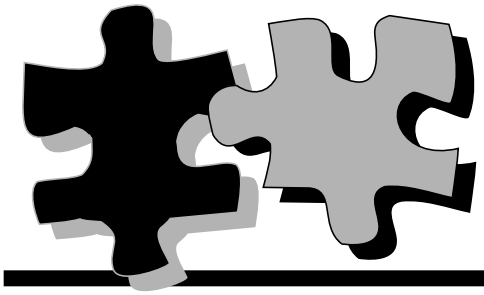


EPA published 58 FR 49200, "Amendment to the National Oil and Hazardous Substances Pollution Contingency Plan; Procedures for Planning and Implementing Off-Site Response Action," on September 22, 1993. This final offsite rule defines criteria for approving facilities that receive waste generated from remedial and removal actions funded or authorized, at least in part, by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). EPA requires that remedial activities initiated through DOE's lead-agency authority under CERCLA sections 104, 106, or 120 comply with the offsite rule.

Under this rule, only facilities that meet EPA's acceptability criteria, including transfer facilities, can be used for managing CERCLA waste offsite. Because deciding how to cleanup a CERCLA site may depend on the acceptability of the receiving facility, the rule could affect the cleanup schedule and types of feasible cleanup remedies from which to choose.

The rule affects persons conducting CERCLA remedial and removal activities, and offsite facilities that might receive the generated waste. However, this is not likely to impact significantly DOE facilities that incorporated requirements for selecting offsite facilities into waste management activities in their remedial programs. One long-term benefit to DOE's remediation projects is a possible increase in the number of, and competition between, accepted facilities.

But, DOE will have to be concerned about the designation of waste management facilities for CERCLA wastes. DOE waste management facilities that receive waste from other DOE sites, or locations at their own site, would be required to qualify under the offsite rule. This process would be an administrative burden and might trigger the need or accelerate the cleanup schedule for facility-wide investigations. The rule effectively establishes the need for DOE to access the likelihood of receiving offsite CERCLA waste, evaluate whether onsite hazardous waste management facilities are acceptable, and determine actions required to increase their likelihood of acceptance. For more information, or to obtain a copy of the latest EPA regional offsite contacts (ROC) listing, call Beverly Whitehead (EH-413) at (202) 586-6073. ❑



Lessons To Be Learned

At Rocky Flats, Community Partnership is the Safest Way of Doing Business

Not only are Rocky Flats Environment Technology Site officials informing the media and its stakeholders about changes in mission at the site, but they are involving these groups to find ways to better protect employees, the public, and environment during site cleanup activities. Plutonium operations were curtailed in 1989, the production mission was terminated in 1992, and Rocky Flats is now working openly with stakeholders to shift activities safely to interim plutonium storage, waste management, facility decontamination and decommissioning, environmental restoration, and economic conversion.

This public partnership is a long way from the days when Rocky Flats—and other DOE sites—operated under a shroud of Cold War secrecy. Rocky Flats is soliciting stakeholder input in major decisions and regaining trust and credibility with the press following the 1989 FBI raid on the site for alleged environmental crimes. (No accounts were substantiated. Then management and operating contractor, Rockwell International, settled, leaving issues unresolved.)

In 1990, when DOE established the Rocky Flats Office and brought in contractor EG&G Rocky Flats, the site's communications team focused on getting to know the community and bringing stakeholders and the media up to speed on the enormous number of complex ES&H issues impacting the site. Their first orders of business—such as establishing a public reading room and distributing fact sheets—were later matched by DOE's dismantling symbols of secrecy—from tearing down security fences and inner-guard posts to opening buildings to uncleared access. Jill Paukert, Community Relations Manager for new RF contractor Kaiser-Hill, credits Secretary O'Leary's openness initiative for significantly advancing RF efforts to demystify plutonium operations at the site.

Be Proactive

In time, RF's communications staff was quickly recognized for improving site relations with stakeholders. A December 1992 report by the Office of the Deputy Assistant Secretary for Transition and Management (EM-60) review team confirmed the change, asserting that Rocky Flats "stakeholder/community relations [efforts] are innovative, comprehensive, effectively implemented, and responsive."

Today, Rocky Flats works closely with the community *before* making important decisions. At a recent stakeholder meeting, Mark V. Silverman, Manager, Rocky Flats Field Office, discussed a proposal to temporarily consolidate the site's separately-housed plutonium inventories into one existing, onsite building. The community, however, gave him the go-ahead to explore a potentially safer and less costly alternative--build a *new* interim storage facility and avoid millions in renovations and safety upgrades to the existing, aging facility. Paukert notes that the community's consideration of such an option marks "a tremendous step forward" for the site.

Beware Stakeholder Burnout

Over the last year, Rocky Flats has been tackling a new stakeholder relations issue--how to determine which issues require public *involvement* versus public *information*. With more than 10 local and national interest groups participating in more than 50 public meetings per year, Rocky Flats wants to help stakeholders understand where their input is most valuable and how it relates to site decisions and actions. To this end, the Public Participation Focus Group, which was formed last year to coordinate RF public involvement activities, is developing guidance for matching appropriate involvement levels to the types of decisions being made. For example, "big-picture" policy decisions might best be addressed in a large forum with broad representation, while project-specific decisions might require the more focused involvement of small working groups.

Two DOE-sponsored citizens groups provide community-based perspectives and recommendations on site issues. The site-specific RF Citizens Advisory Board makes recommendations to DOE and its regulators on mission-related issues, specifically environmental remediation, cleanup, waste management, plutonium, and future uses of the site. On the other hand, the RF Local Impacts Initiative focuses on easing negative impacts of RF's changing mission on the local community, such as workforce restructuring, employee issues, and socioeconomic and economic conversion issues.

Along with other interest groups and stakeholders, these groups are setting goals and driving change. At the first-ever Rocky Flats stakeholder summit held March 3-4, 1995, about 120 participants—including local residents, RF employees, Board and Initiative committee members, union representatives, regulatory agency representatives, Congressional staff, elected officials, governor's staff, and DOE officials—hammered out the following eight priorities by consensus. Their challenge to DOE: **Make it safe and clean it up.**

(1) Make plutonium safer.
(2) Reduce highest risk contamination.
(3) Find ways to reduce the mortgage [funds needed to keep former processing buildings operational and safe].
(4) Recognize magnitude and complexities of waste management challenges.
(5) Commit to use budget savings for priorities 1-3 and guarantee to complete deferred cleanup activities when resources become available.
(6) Be responsible for actions; don't roll over for budget cuts.
(7) Review the rules, standards, and procedures in light of the mission change.
(8) Involve and inform stakeholders.

Colorado Congressman David Skaggs (D) addresses stakeholders at Rocky Flats Summit meeting.

Inform the Media

Keeping the media constantly informed is key to helping Rocky Flats maintain positive working relationships with the community. Denver is a top 20 media market that offers journalists many channels to impact public perception. Bottom line: The more information the media receives, the more balanced their coverage becomes. In 1994, Rocky Flats issued more than 200 press releases, compared to less than 10 in 1989. Says KMGH-TV reporter Dave Minshall, "Things have changed [for the better] at Rocky Flats from my point of view, which is the public's point of view. It's easier to get answers."

3-way Communication

Rocky Flats' media relations team makes dialogue easier among the media, community, and site employees by following the guidelines listed below.

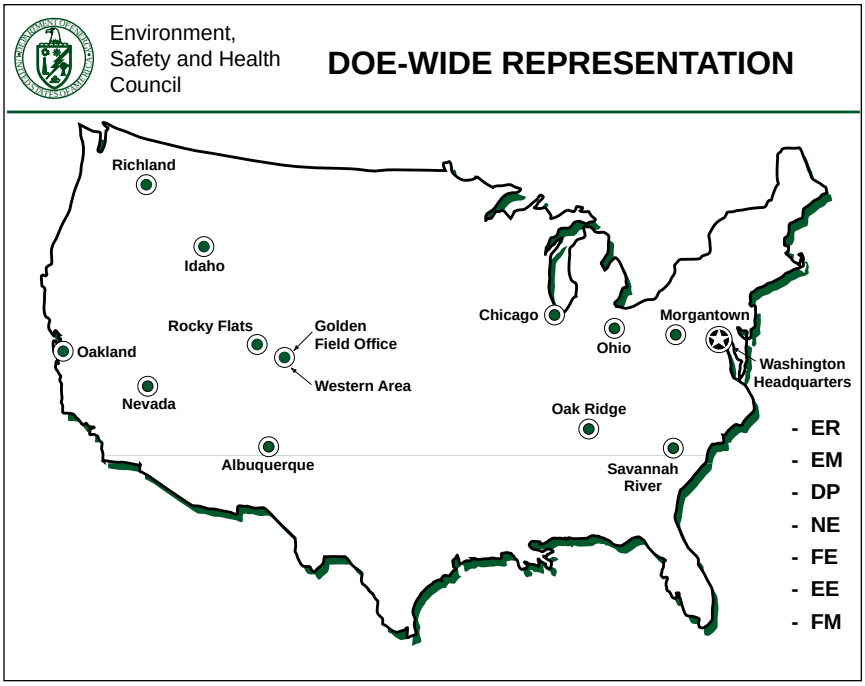
- Adhere to the philosophy: "No comment" is unacceptable.
- Respond to requests for information within 24 hours.
- Make media relations staff accessible at all times.
- Involve the media at onsite briefings and roundtables.
- Get top management support of public/media involvement.

As proof of the site's new accessibility, the number of visitors to the site increased significantly from FY 1990 to FY 1995. Between FY 1990 and FY 1995, more than 15,300 stakeholders visited the site. In FY 1995 alone, 4,103 persons toured the site during 426 visits. One of the most publicized visits was a May 1991 tour of Building 559, the first-ever public and news media tour of a plutonium operations building at Rocky Flats. The "response was phenomenal," recalls Paukert. Opening up high-security plutonium areas to reporters and stakeholders has helped demystify past and present site operations. Since then, tours of other plutonium buildings and former production buildings have been arranged for the media and public, including a July 1994 visit by Russian scientists to view the storage of plutonium pits. Other high-visibility tours included CBS's 60 *Minutes*, PBS' *Frontline*, ABC *World News Tonight*, British Broadcasting Company (BBC), ABC's *Nightline*, *Los Angeles Times*, and *Time Magazine*.

Paukert says that community and media relations efforts are a "great investment. Whatever time it takes to help the public understand complex issues and provide meaningful input is time well spent." For more details on how Rocky Flats continues to improve its media and community relations, call Jill Paukert (Kaiser-Hill) at (303) 966-6160 or Jeremy Karpatkin (DOE Communications Director) at (303) 966-5993. ❑

Environment, Safety and Health Council

The Environment, Safety and Health (ES&H) Council first met in December 1994 to provide a centralized forum to (1) identify and address "corporate" ES&H issues, (2) facilitate information exchange, (3) coordinate key ES&H initiatives and activities, and (4) make action recommendations to Secretarial Officials. The Council raises awareness and promotes consensus for ES&H decisionmaking and unilateral policymaking, and minimizes DOE "stovepiping." The DOE-wide deliberative group, which meets quarterly, is chaired by Tara O'Toole, Assistant Secretary for EH, and is comprised of senior-level ES&H managers from over 25 DOE Headquarters and field organizations. External and internal participants (such as Federal employees, contractors, union and private industry representatives) may be invited to participate.



ES&H Council members represent Headquarters and field organizations DOE-wide.

Council forum topics have included contract reform, oversight, DOE Orders revisions, necessary and sufficient initiatives, performance measures, ES&H management, and technical assistance initiatives, such as HAZWOPER and workers' compensation. Accomplishments include coordination of disparate oversight initiatives, benchmarking industry S&H downsizing strategies, tracking necessary and sufficient, and identifying models for improved ES&H management. The fourth quarter ES&H Council meeting will be held November 13-14, 1995, in Denver, CO, at the Annual DOE ES&H Forum. For information, contact Myrna Steele, Council Secretariat (EH-5), at (301) 903-5030. ❑

Oak Ridge Annual Safety Day Talks On- and Offsite Safety

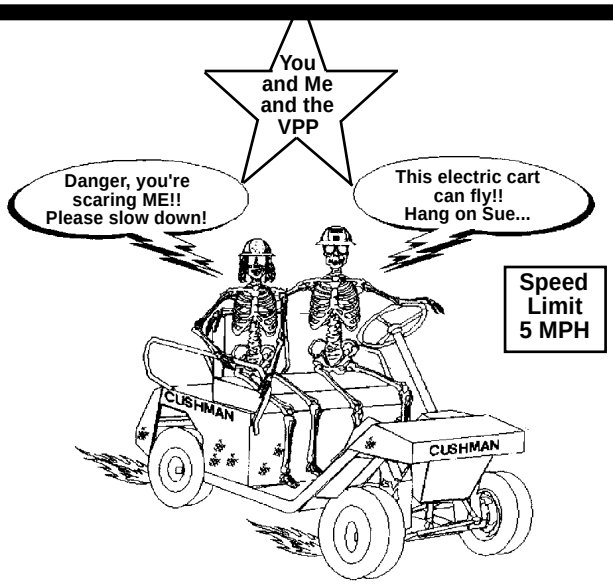
Speakers at Oak Ridge National Laboratory's (ORNL) annual site Safety Day change every year, but their message stays the same: *Employees face similar hazards at home and in the workplace*. This broad-minded approach has been so effective that the third annual Safety Day, scheduled for October 20-21, 1995, will be combined with Bring Your Child to Work Day, Community Day, and Family Day. About 80 percent of ORNL's approximately 4,000 day shift employees will participate this year. In the morning, employees clean or make repairs to their work areas. Then they move to a tent to hear presentations about on- and offsite safety. This year's speakers feature a union Lockheed Martin Energy Systems, Inc. (LMES) guard on firearms safety training for children, senior LMES manager on weather safety, Tennessee highway patrol person on seatbelt safety, and a Center for Disease Control and Prevention representative on communicable diseases. Vendors also display the latest personal protective equipment available.

Painters Doug Coile (l) and Dave White in front of their sign shop display at the 1994 Safety Day.

Jim Hill, (ORNL), Safety Day co-chair and S&H Representative for the Atomic Trades & Labor Council, says that employees—not just the safety department—should brainstorm ideas for Safety Day. Why? Each year, employees become more enthusiastic about their contribution to this event. For the last 2 years, the commercial truck drivers have provided a trucking rodeo for the crowd. "The first year was for fun," says Hill, "but last year, they competed individually for awards." For details on energizing your site's Safety Day, call Jim Hill (ORNL) at (615) 576-2030. ❑

PANTEX Employees Eye DOE Voluntary Protection Program Prize

Pantex Plant has established six employee committees to boost employee involvement in their S&H program. The site is planning to submit an application for the DOE Voluntary Protection Program (DOE-VPP) within the next year and hopes to be eligible for an onsite review that determines whether the site is DOE-VPP Star quality. (DOE-VPP is a contractor recognition program, and Star status is the highest level of recognition.) Their goal--To become the next DOE-VPP Star site and join 1-year Star veteran Westinghouse Waste Isolation Pilot Plant.



Danger Dan's adventures promote safety awareness in all Pantex operations.

To this end, one committee is developing a plant-wide process to create safe work practices through employee participation in (1) plant S&H inspections, (2) accident investigations, and (3) resolution of S&H concerns through hazard identification teams (HIT). The HIT mission is to "seek and destroy" S&H hazards that cause most plant accidents. Another committee on electrical safety, comprised of union and safety personnel, raises site S&H awareness through outreach efforts spearheaded by journeyman electricians Bill Head and Tim Potter. One strategy--Posting cartoons featuring "Danger 'Dan'" and his safety-wise sidekick that encourage best work practices. For more information on Pantex's DOE-VPP application preparation process, contact Frank George (Mason & Hanger) at (806) 477-3412 or Patrice Ford (Battelle) at (806) 477-4640. ❑

Oak Ridge Union Grantees Build Model HAZWOPER Training Program

Four Oak Ridge (OR) unions were awarded grants by the National Institute of Environmental Health Sciences (NIEHS) in July 1993 to provide HAZWOPER training to OR supervisors and workers. The grantees are developing a model pilot program that will increase the effectiveness and reduce costs of HAZWOPER training DOE-wide. Since October 1994, the grantees—(1) Oil, Chemical and Atomic Workers; (2) International Chemical Workers Union/International Association of Machinists; (3) International Union of Operating Engineers; and (4) United Brotherhood of Carpenters—have provided all site-wide training, including 8-hour refresher and 8-hour supervisor courses. To date, over 4,200 workers have been trained by 20 union instructors. The results--Improved quality of instruction, and substantial cuts in training and course development costs. For example, 40-hour training costs $60 per person, compared to $600 per person through local contractors or universities.

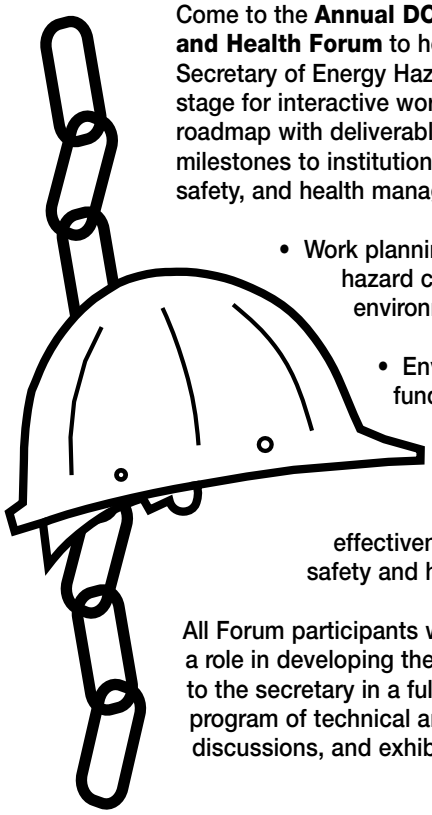
Two of the program's biggest obstacles were overcoming resistance from line organizations that were not convinced of the programs quality and consistency between grantee organizations. Today, technical personnel appreciate the instructors' lessons learned based on first-hand expertise. This has fostered better working relationships and reduced project delays. NIEHS has been so impressed with the grantees' continuing success that they held their annual meeting at OR in June 1995. For details, contact Keith Jimmerson (LMES) at (615) 576-8684. ❑

Requests for FEOSH Technical Assistance Visits Growing

More DOE sites are requesting technical assistance visits from Federal Employee Occupational Safety and Health (FEOSH) staff to identify and eliminate potential exposures at their sites, as well as strengthen their employee protection programs. In many cases, the assistance resulted in no- or low-cost solutions that improve their S&H programs. Cynthia Mullens, Ergonomics Program Coordinator at former volunteer site Morgantown Energy Technology Center (METC), says the visit accelerated development of METC's ergonomics program. She adds that it would have taken her 1 month to do as many workstation evaluations that were completed in 3 days by the FEOSH staff. After the tour, training was provided by S&H professionals, followed by non-mandatory training for general employees. Mullens says the recommendations are sensitive to current site budget and personnel restraints.

New visits are being scheduled at the Office of Science and Technical Information, OAK, and RL. For information on how FEOSH staff can help your site reduce workplace hazards, cut chargeback costs, and increase productivity, contact Les Bermudez (EH-51) at (301) 903-9879. To learn about METC's visit, contact Cynthia Mullens (METC) at (304) 285-4240. ❑

Annual DOE ES&H Forum Awarded Continuing Certification Credits



Come to the **Annual DOE Environment, Safety and Health Forum** to hear the keynote speech by Secretary of Energy Hazel R. O'Leary that sets the stage for interactive working groups to develop a roadmap with deliverables, success measures, and milestones to institutionalize three vital environment, safety, and health management tenets.

- Work planning, hazard analysis, and hazard control are the essence of environment, safety and health.
- Environment, safety, and health is fundamentally a line management responsibility.
- Workers participation greatly enhances the effectiveness of environment, safety and health.

All Forum participants will have an opportunity to play a role in developing the roadmap that will be reported to the secretary in a full plenary session. A full program of technical and poster sessions, panel discussions, and exhibits will also be offered.

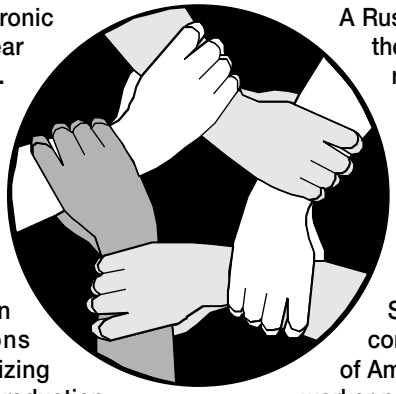
Attention certified safety professionals and certified industrial hygienists --
The Board of Certified Safety Professionals approved the Forum for 1 continuing of certification (COC) point in the professional development conference category. Half-day pre-forum activities --except the Occupational Medical program meeting--are approved for 0.25 point. Full-day programs receive 0.5 point. For questions, call (217) 359-9263.

The American Board of Industrial Hygiene will award 0.5 continuing maintenance (CM) point for each half-day of participation under approval code #8623 up to a maximum of 2 points. For questions, call Barbara Saalfeld at (617) 321-2638.

To obtain a registration package for the Forum, November 13-17, 1995, in Denver, CO, please call (301) 903-6007. For additional information, call (301) 903-3294. ❑

International Studies on Health Risk Assessments

Health risks associated with acute or chronic radiation exposures resulting from nuclear accidents are an issue of global concern. DOE's Office of International Health Studies (EH-63) funds and oversees epidemiological studies on populations outside the United States who are exposed to ionizing radiation. Currently in progress are studies in the Ukraine and Belarus on populations affected by the Chernobyl accident and in the Russian Federation on workers and populations chronically exposed to low levels of ionizing radiation resulting from nuclear weapons production and testing. Such studies will enable scientists to better estimate the risks associated with chronic low-to-medium level exposures to radiation and to compare these estimates with previous estimates obtained from populations acutely exposed to radiation.



A Russian-American Agreement signed in January 1994 laid the foundation for a joint U.S. and Russian Federation research program on the health and environmental effects of radiation. A Joint Coordinating Committee for Radiation Effects Research (JCCRER) was established and convened in October 1994 to implement this bilateral research program. DOE is the Executive Agent for the United States. Initial short-term feasibility studies will focus on the Chelyabinsk region of the Russian Federation near the South Ural Mountains, one of the world's most highly contaminated areas. Project research teams composed of American and Russian scientists will carry out studies on worker populations at the Mayak Production facility and populations living near the Techa River. These initial studies will include an assessment of dose reconstruction, a review of existing databases, and the identification of appropriate control groups for future studies on carcinogenesis and other health risks. For further information contact Elaine Gallin (EH-63) at (301) 903-2105. ❑

More Data Added to the Comprehensive Epidemiologic Data Resource

The Comprehensive Epidemiologic Data Resource (CEDR), a central repository of epidemiologic and other health-related data resulting from DOE-funded studies, has been expanding its data holdings since it was first introduced to the public in 1993 by DOE's Office of Epidemiologic Studies (EH-62). Initially, CEDR provided data generated from DOE's worker mortality studies conducted during the past 30 years. Today, CEDR includes data from environmental and community health studies, epidemiologic record inventories, worker surveillance reports, studies of atomic bomb survivors and radium dial painters, and the U.S. Transuranium and Uranium Registries. CEDR data can be used for various purposes, including new analyses of existing data, design of new studies, and comparison of different analytic methods.

The CEDR information system facilitates access to data used in health studies, allowing users to independently evaluate study methods and interpret study results. By providing stakeholders with data useful for understanding health impacts related to DOE operations, CEDR supports DOE's openness initiative. Users access the system through Internet (World Wide Web and Gopher servers) or dial-up connections (text-mode clients with terminals or terminal emulators). CEDR also offers a comprehensive hard-copy catalog, recently updated to reflect CEDR's holdings, which tripled in the last 2 years. Data from additional studies are added continuously. For more information or copies of the CEDR catalog, contact Barbara Brooks (EH-62) at (301) 903-4674. ❑

CERCLA Baseline Risk Assessment Reference Manual Now Available

A reference manual entitled *CERCLA Baseline Risk Assessment Manual for Toxicity and Exposure Assessment and Risk Characterization* (DOE/EH-0484) for DOE personnel and contractors who plan, manage, and communicate risk assessment information and guidance for CERCLA environmental restoration projects was published by DOE's RCLA/CERCLA office (EH-413). This manual guides project personnel through the process of interpreting EPA guidance and discussing it with regulators, decisionmakers, and stakeholders. To this end, there are sections that (1) detail science policy issues underlying the CERCLA baseline risk assessment process, (2) summarize the agency's up-to-date national guidance to EPA regional offices on selected CERCLA baseline risk assessment topics, and (3) examine how CERCLA guidance changed over time. This perspective facilitates a discussion of the pros, cons, weaknesses, uncertainties, and policy areas where more than one interpretion may be acceptable for each of the topics covered.

Additional reference materials are listed for risk analysts looking for more information on specific topics. To obtain a copy of the manual, call the Office of Scientific and Technical Information at (615) 576-8401 or the Center for Environmental Management Information at 1-800-736-3282. For information on CERCLA baseline risk assessment guidance topics, contact John Bascietto (EH-413) at (202) 586-7917, fax (202) 586-3915, or e-mail *john.bascietto@hq.doe.gov*. ❑

Mobile Pen-Based Computers Enable Quality, Onsite Data Collection

Field emergency response and inspection personnel can improve dramatically the speed and quality of data collection and processing by using mobile, pen-based computers to record information *onsite*. Users complete electronic forms by using a pen, rather than a mouse, to select choices and input data on the computer screen. Text can be entered via pen or keyboard. The computer then quality checks (audits) and transmits electronically the form and all associated data via cellular or radio modem or satellite. Computerized entry and transmission eliminates rekeying errors, misinterpretation of information, lost paperwork, incomplete forms, and processing delays. Photographs, handwritten notes, voice recordings, and global positioning system (GPS) data also may be included as part of the electronic form.

For more information on using pen-based technology as a cost-effective alternative to paper forms, call George Albrecht (SAIC) at (301) 601-5626 or David Kindred (SAIC) at (301) 601-5674. ❑

Order EH Publications by FAX

Now you can obtain *ES&H Synergy* by fax. This new option provides readers with speedier delivery and significantly reduces printing and distribution costs . The *ES&H Synergy* and *The Safety and Health Connection* newsletters, *Safety and Health Notes*, *Bulletins*, and *Hazard Alerts*, ES&H Updates, DOE news releases, and other EH publications are available via the automated fax service called "FAX on Demand" by calling (301) 903-6692. Or you can electronically access these publications through TIS, the ES&H Technical Information Services computer network. Call the TIS Helpline at (208) 526-8955 or e-mail *support@tis.inel.gov* for help accessing the system. For more information on EH publications, call Barbara Bowers (EH-5) at (301) 903-3016. ❑

Upcoming TRAINING

Title	When	Where	Contact
Chairperson Workshop	October 4-5, 1995	Richland, WA	Marcia Pratt (Lockheed Idaho) (208) 526-1357
Principles of Accident Investigation Workshop	October 16-19, 1995	Richland, WA	Marcia Pratt (Lockheed Idaho) (208) 526-1357
Readiness Team Training Workshop	October 20, 1995	Richland, WA	Marcia Pratt (Lockheed Idaho) (208) 526-1357
Principles of Accident Investigation Workshop	November 7-10, 1995	Reston, VA	Marcia Pratt (Lockheed Idaho) (208) 526-1357
Chairperson Workshop	November 2-3, 1995	Reston, VA	Marcia Pratt (Lockheed Idaho) (208) 526-1357
Principles of Accident Investigation Workshop	December 5-8, 1995	San Diego, CA	Marcia Pratt (Lockheed Idaho) (208) 526-1357
Principles of Accident Investigation Workshop	January 8-11, 1996	Augusta, GA	Marcia Pratt (Lockheed Idaho) (208) 526-1357
Readiness Team Training Workshop	January 12, 1996	Augusta, GA	Marcia Pratt (Lockheed Idaho) (208) 526-1357
Principles of Accident Investigation Workshop	January 22-25, 1996	Knoxville, TN	Marcia Pratt (Lockheed Idaho) (208) 526-1357
Readiness Team Training Workshop	January 26, 1996	Knoxville, TN	Marcia Pratt (Lockheed Idaho) (208) 526-1357
Principles of Accident Investigation Workshop	February 13-16, 1996	Orlando, FL	Marcia Pratt (Lockheed Idaho) (208) 526-1357

NEPA TRAINING

Training on NEPA regulations, process, and document preparation is being offered at the following locations. For more information, call the point of contact listed or Linda Thurston (EH-42) at (202) 586-1509.

September 27-28, 1995
Oakland, CA
Tony Aducci (OAK) (510) 637-1807

October 1995 (TBA)
Hanford, WA
Annabelle Rodriguez (RL) (509) 372-0277

October 11-12, 1995
Chicago, IL
Bill White (CH) (708) 252-2101

November 1995 (TBA)
Idaho Falls, ID
Linda Thurston (EH-42) at (202) 586-1509

December 1995 (TBA)
Amarillo, TX
Linda Thurston (EH-42) at (202) 586-1509

TIS Training Workshops

Technical Information Services (TIS) training workshops will be held November 13-14, 1995, prior to the Annual DOE ES&H Forum in Denver, CO. TIS is an interactive computer network system that allows users access to worldwide ES&H information sources. Users search for, send, or receive data, graphics, even sound via modem or Internet, a network of electronic connections stretching around the globe. For more information on TIS workshops, call the TIS Helpline at (208) 526-8955 or e-mail at *support@tis.inel.gov*. ❑

Schedule of Upcoming Conferences, Meetings, and Workshops

Title	When	Where	Contact
Emerging Technologies in Hazardous Waste Management VIII	September 17-20, 1995	Atlanta, GA	Meeting Makers (404) 894-2856
11th Annual National Voluntary Protection Program Participants' Association (VPPPA) Conference	September 26-29, 1995	Washington, DC	VPPPA (703) 761-1146
1995 DOE Technical Standards Program Workshop	October 3-6, 1995	St. Louis, MO	Becky Harrell (LMES) (615) 574-0396
Environmental Technology Development through Industry Partnership	October 3-5, 1995	Morgantown, WV	Conference Services (304) 285-4108
1995 Shull Institute International Symposium	October 7-10, 1995	Huston, TX	Kim Dunn Shull Institute (713) 527-8711
Health Physics Society (HPS) Washington Forum	October 9-11, 1995	Washington, DC	(HPS) (703) 790-1745
6th Annual International CFC and Halon Alternatives Conference	October 23-25, 1995	Washington, DC	J. McCusker (Intl. CFC & Halon Alternatives Conf.) FAX (703) 243-2874
TRADE Conference	October 24-26, 1995	Chicago, IL	Denise Hawkins (ORISE) (615) 576-3316
InForum	October 25-26, 1995	Oak Ridge, TN	Sue Davis (DOE) (615) 576-2615
1995 National Safety Council Congress and Exposition	November 5-10, 1995	Dallas, TX	NSC (800) 621-7615
Key Elements of a Successful Construction Safety Program	November 9, 1995	Dallas, TX	Richard Hislop (ANL) (708) 252-4600
Annual DOE Environment, Safety and Health Forum	November 13-17, 1995	Denver, CO	Vernetta Gaines (COMPA Industries) (301) 903-3294
Third International Uranium Hexaflouride Conference	November 28-December 1, 1995	Paducah, KY	Barbara Scott (Institute of Nuclear Materials Management) (708) 480-9573
11th International Conference on the Packaging and Transportation of Radioactive Materials	December 3-8, 1995	Las Vegas, NV	Laura Dechter (Social & Scientific Systems) (301) 986-4870
17th Low-level Radioactive Waste Management Conference	December 12-14, 1995	Phoenix, AZ	Donna Lake (INEL) FAX (208) 526-9165
Waste Management (WM) '96	February 25-29, 1996	Tucson, AZ	WM Symposia, Inc. (520) 624-8573

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In this Issue . . .

FULL CONTENTS LIST ON PAGE 2